

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows, substituting any amended claim(s) for the corresponding pending claim(s):

1. (Currently Amended) An ocular scleral prosthesis comprising
an elongated body adapted to be implanted in an elongated pocket surgically formed within
scleral tissue of an eye, said the pocket being formed in the zone of the globe of said the eye exterior
to the ciliary body and extending generally circumferentially of said zone for a predetermined length
less than a circumference of said globe in said zone completely around the lens of the eye, the pocket
having a base comprised of inner layers of the scleral tissue, a flap formed from outer layers of the
scleral tissue, an anterior margin and a posterior margin.

wherein said the body and any members within said pocket that are attached to said the body
when the prosthesis is implanted have an aggregate length less than said a circumference of said
globe in said zone a circle concentric with the lens and intersecting an innermost portion of the
anterior margin,

said pocket having a base comprised of inner layers of the scleral tissue, a flap formed from
outer layers of the scleral tissue, an anterior margin and a posterior margin;

said the elongated body having a first surface and a second surface opposite said the first
surface, said the first surface and said the second surface being adapted to respectively contact said
the base and said the flap of said the scleral pocket when implanted,

said the first surface and said the second surface being separated by a distance sufficient to
elevate said the flap relative to the base and exert outwardly directed traction on at least said the
anterior margin of said the pocket when the prosthesis is implanted.

Claims 2–60 (Canceled)

61. (Currently Amended) A prosthesis adapted for contact with the sclera of an eyeball, said the prosthesis comprising:

an elongated body having a first end and a second end, wherein said the first end is linearly more distal from said the second end than from any other portion of said the body and wherein said the first and second ends are unattached to any other member other prosthesis when the prosthesis is implanted, said the body including a first surface and a second surface opposite said the first surface, said the first surface and said the second surface each contacting a portion of said the sclera when the prosthesis is implanted; and

means for expanding said the contacted sclera when the prosthesis is expanded to increase the effective working distance of the ciliary muscle of the eyeball.

62. (Currently Amended) The prosthesis set forth in Claim 61 wherein said the expanding means is one of a ridge and a crest.

63. (Currently Amended) The prosthesis set forth in Claim 61 wherein one of said the first surface and said the second surface is generally smooth and is adapted to contact ocular tissue within a pocket surgically formed within the sclera of the eyeball when the prosthesis is implanted.

64. (Currently Amended) The prosthesis set forth in Claim 61 wherein said the prosthesis is one of generally rectangular, curved, and elongated.

65. (Currently Amended) The prosthesis set forth in Claim 61 wherein one of said the first surface and said the second surface comprises an anterior edge and a posterior edge, and said the expanding means has a maximum height above said the elongated body of one of: (i) intermediate between said the anterior edge and said the posterior edge, (ii) less than halfway from said the anterior edge to said the posterior edge, and (iii) at said the anterior edge.

66. (Original) The prosthesis set forth in Claim 61 comprises a planform having a first dimension and a second dimension.

67. (Currently Amended) The prosthesis set forth in Claim 66 wherein one of said the first surface and said the second surface is planar.

68. (Currently Amended) The prosthesis set forth in Claim 66 wherein said the expanding means extends along at least a portion of said the first dimension.

69. (Currently Amended) The prosthesis set forth in Claim 66 wherein said the first dimension is about five (5) millimeters and said the second dimension is about two (2) millimeters.

70. (Currently Amended) The prosthesis set forth in Claim 61 wherein said the prosthesis is made of one of a physiologically acceptable metal, a ceramic material, a synthetic resin, a reinforced composite material, and a flexible material.

71. (Withdrawn) The prosthesis set forth in Claim 61 wherein said the prosthesis is provided with an internal cavity.

72. (Withdrawn) The prosthesis set forth in Claim 71 wherein said the internal cavity is filled with one of a fluid and a gel.

73. (Withdrawn) The prosthesis set forth in Claim 71 wherein said the internal cavity is filled with one of water, a saline solution, an oil, silicone, collagen, and gelatin.

74. (Currently Amended) A prosthesis for surgical implant into a pocket in the sclera of an eyeball, said the prosthesis comprising an elongated body having a first end and a second end adapted to be free of contact with any other prosthesis when the prosthesis is implanted, wherein every portion of said the body between the first and second ends is spaced apart from said the first end by a linear distance less than a linear distance between said the first and second ends, said the body including a first surface and a second surface, said the first surface and said the second surface being adapted to contact said the sclera when the prosthesis is implanted, said implanted the prosthesis configured to apply an outward force on said the scleral pocket when implanted to elevate the an overlying portion of the sclera attached thereto to increase the effective working distance of the ciliary muscle of the eyeball.

75. (Currently Amended) The prosthesis set forth in Claim 74 wherein said first surface is an outer surface that is generally smooth and is adapted to contact ocular tissue within the scleral pocket the elongated body is generally rectangular.

76. (Currently Amended) The prosthesis set forth in Claim 74 wherein said the elongated body is one of generally rectangular, curved, and arched along a long dimension thereof.

77. (Currently Amended) The prosthesis set forth in Claim 74, wherein one of said the first surface and said the second surface comprises an anterior edge and a posterior edge, and said the prosthesis has a maximum height located ~~at one of~~ intermediate between said the anterior edge and said the posterior edge, ~~less than halfway from said anterior edge to said posterior edge, and at said anterior edge.~~

78. (Currently Amended) The prosthesis set forth in Claim 74, ~~comprises a planform having a first dimension, a second dimension, an inner surface and an outer surface~~ wherein one of the first surface and the second surface comprises an anterior edge and a posterior edge, and the prosthesis has a maximum height located between the anterior and posterior edges less than halfway from the anterior edge toward the posterior edge.

79. (Currently Amended) The prosthesis set forth in Claim 78 ~~74, wherein the body has a planform having a first dimension longer than a second dimension,~~ wherein one of said the first surface and said the second surface is planar across the planform and contacts the sclera along the second dimension when the prosthesis is implanted.

80. (Currently Amended) A scleral prosthesis comprising a body adapted for contact with the sclera of an eye in the region of the ciliary body when implanted, said the body having a first end, a second end and a ridge projecting above surrounding portions of the body, the ridge located between first and second edges of the body and extending along a majority of a length of said the body from said the first end to said the second end, said the ridge having a prescribed shape operating to exert a force with respect to the contacted eye to expand the sclera in the region of the ciliary body when implanted.

81. (Currently Amended) The scleral prosthesis set forth in Claim 80 wherein said the prescribed shape exerts a force with respect to the eye to increase the working distance of the ciliary muscle of the eye.

82. (Currently Amended) The scleral prosthesis set forth in Claim 80 wherein said the prescribed shape exerts a force with respect to the eye to increase the amplitude of accommodation of the eye.

83. (Currently Amended) The scleral prosthesis set forth in Claim 80 wherein said the body further has an outer surface that is adapted to contact ocular tissue within a pocket surgically formed within the sclera of the eye.

84. (Currently Amended) The scleral prosthesis set forth in Claim 80 wherein said the prosthesis ~~is one of has a~~ generally rectangular, curved and elongated planform.

85. (Currently Amended) The scleral prosthesis set forth in Claim 80 ~~83~~ wherein said the body further has a base ~~having an anterior edge and a posterior edge adapted to contact scleral tissue between anterior and posterior margins of the pocket when the prosthesis is implanted within the pocket, the base contacting scleral tissue along a width of the base when the prosthesis is implanted.~~

86. (Currently Amended) The scleral prosthesis set forth in Claim 85 ~~83~~ wherein said the base further comprises a planform having a first dimension; longer than a second dimension, ~~an inner a~~ first surface and ~~an outer a~~ second surface, and a height, the ridge formed by or projecting from the first surface, the second surface contacting scleral tissue across the planform when the prosthesis is implanted within the pocket.

87. (Currently Amended) The scleral prosthesis set forth in Claim 86 wherein said outer the second surface of said the base is planar.

88. (Currently Amended) The scleral prosthesis set forth in Claim 86 wherein said the ridge extends along at least a portion of said the first dimension of said the base and is formed by an intersection of a first portion of the first surface that extends substantially along the height of the body with a second portion of the first surface that slopes across both the planform and the height.

89. (Currently Amended) The scleral prosthesis set forth in Claim 86 wherein said the first dimension is about five millimeters and said the second dimension is about two millimeters.

90. (Currently Amended) The scleral prosthesis set forth in Claim 80 wherein said the prosthesis is made of one of a physiologically acceptable metal, a ceramic material, a synthetic resin, a reinforced composite material and a flexible material.

91. (Withdrawn) The scleral prosthesis set forth in Claim 80 wherein said the prosthesis is provided with an internal cavity.

92. (Withdrawn) The scleral prosthesis set forth in Claim 91 wherein said the internal cavity is filled with one of a fluid and a gel.

93. (Withdrawn) The scleral prosthesis set forth in Claim 91 wherein said the internal cavity is filled with one of water, a saline solution, an oil, silicone, collagen, and gelatin.

94. (Currently Amended) A scleral prosthesis comprising a body adapted for contact with the sclera of an eye in the region of the ciliary body, said the body having (i) a base member having an elongated planform with a major dimension, a minor dimension, an inner major surface and an outer major surface, said the body being adapted to contact ocular tissue of the eye in the region of the ciliary body when the prosthesis is implanted, and (ii) a ridge member on said the outer major surface of said the base member and along said the major dimension of said the base member and spaced apart from edges of the base member that wherein the ridge member, when the prosthesis is implanted in the eye, applies a force to the contacted ocular tissue to thereby expand the sclera in the region of the ciliary body,

wherein the major dimension is less than a circumference of a circle concentric with the lens of the eye and having a radius equal to a distance from the center of the lens to a surface of the body member that is closest to the lens when the prosthesis is implanted in the eye, and
wherein the ridge member is adapted to apply the force to the contacted ocular tissue when the prosthesis is implanted at a location spaced apart from any other prosthesis.

95. (Currently Amended) The scleral prosthesis set forth in Claim 94 wherein said the ridge member, when the prosthesis is implanted in the eye, exerts a force with respect to the eye to increase the working distance of the ciliary muscle of the eye.

96. (Currently Amended) The scleral prosthesis set forth in Claim 94 wherein said the ridge member, when the prosthesis is implanted in the eye, exerts a force with respect to the eye to increase the amplitude of accommodation of the eye.

97. (Currently Amended) The scleral prosthesis set forth in Claim 94 wherein said the outer surface is adapted to contact ocular tissue within a pocket surgically formed within the sclera of the eye.

98. (Currently Amended) The scleral prosthesis set forth in Claim 94 wherein said the prosthesis is one of generally rectangular, curved and elongated.

99. (Currently Amended) The scleral prosthesis set forth in Claim 94 wherein said the body further has a base having an anterior edge and a posterior edge, wherein the ridge is located spaced apart from the anterior edge.

100. (Currently Amended) The scleral prosthesis set forth in Claim 86 wherein said the outer surface of said the base is planar.

101. (Currently Amended) The scleral prosthesis set forth in Claim 86 wherein said the ridge extends along at least a portion of said the first dimension of said the base member.

102. (Currently Amended) The scleral prosthesis set forth in Claim 86 wherein said the first dimension is about five millimeters and said the second dimension is about two millimeters.

103. (Currently Amended) The scleral prosthesis set forth in Claim 80 wherein said the prosthesis is made of one of a physiologically acceptable metal, a ceramic material, a synthetic resin, a reinforced composite material and a flexible material.

104. (Withdrawn) The scleral prosthesis set forth in Claim 80 wherein said the prosthesis is provided with an internal cavity.

105. (Withdrawn) The scleral prosthesis set forth in Claim 104 wherein said the internal cavity is filled with one of a fluid and a gel.

106. (Withdrawn) The scleral prosthesis set forth in Claim 104 wherein said the internal cavity is filled with one of water, a saline solution, an oil, silicone, collagen, and gelatin.

Please add the following new claims:

107. (Newly Added) The prosthesis set forth in Claim 76 wherein the elongated body is curved along the long dimension.

108. (Newly Added) A scleral prosthesis for implantation into an eye, the prosthesis comprising:
an arcuate base having a length that forms less than a complete circle; and
a ridge on a surface of the base, the ridge adapted to exert outward force on an overlying portion of the sclera of the eye without contacting any other prosthesis when the prosthesis is implanted.